



DEPARTMENT OF AGRICULTURE,  
CEYLON.

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BULLETIN No. 87.

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RESULTS OF TEA EXPERIMENTS:  
EXPERIMENT STATION, PERADENIYA,  
1914—1917.

**M. K. BAMBER, M.R.A.C., F.I.C., F.G.S.**

*Government Agricultural Chemist.*

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Peradeniya,

July, 1918.

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DEPARTMENT OF AGRICULTURE, CEYLON.  
BULLETIN No. 37.

PERADENIYA TEA PLOTS.

**G**THE previous Circulars on the tea plots at the Experiment Station, Peradeniya, were published in 1911 and 1914, and this brings the results up to the end of 1917. Some of the plots not under permanent green manures began to show marked deterioration in the wood and frames of the bushes, although yields were fairly maintained. This is specially noticeable in the Manipuri Indigenous plot 148, adjoining the Dadap plot, which had received no green manures for years. Plots 151 to 154 under rubber also fell off rapidly in yield owing to the shade of the latter, and the tea was cut out in August, 1916. In September, 1916, plots 145 and 149 were each treated with 1,000 lb. of well-burned and slaked lime, the lime being broadcasted up every row and lightly forked in. Plots 146 to 148 and 150 each had 500 lb. of lime similarly applied.

Comparing the yields of these plots for 1915 and 1917, the year before and after application of lime and at the same period from pruning, the results are as follows. Plot 145 showed a decrease of 12 lb., and the Dadap plot an increase of 114 lb., due probably to greater amount of organic matter in this plot. Plots 146, 148, and 150 with 500 lb. of lime gave increases of 95, 30, and 85 lb., respectively. As several of the plots had received no special treatment for some years, it was decided to begin annual artificial manuring experiments to test the effect of nitrogen, phosphoric acid, and potash in combination, and of the omission of one constituent in each series.

The experiments began in July, 1917, and the following acre plots were divided into two and manured with mixtures containing one or more of the chief manurial constituents,

20 lb. of each constituent being included. Plots 141 to 143, 146 to 148 Manipuri jât (Norwood), and 155 Assam Hybrid jât, were divided and manured in duplicate :—

Plot 141, A	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 146, A	50 lb. Sulphate of Potash 40 per cent.	..	20 lb. Potash.
Plot 141, B	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 148, B	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 142, A	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 147, A	111 lb. Superphosphate	..	20 lb. Phosphoric Acid.
Plot 142, B	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 147, B	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 143, A	111 lb. Superphosphate	..	20 lb. Phosphoric Acid.
Plot 148, A	50 lb. Sulphate of Potash	..	20 lb. Potash.
Plot 143, B	286 lb. Groundnut Cake	..	20 lb. Nitrogen.
Plot 148, B	111 lb. Superphosphate	..	20 lb. Phosphoric Acid.
	50 lb. Sulphate of Potash	..	20 lb. Potash.

A census of the bushes in each half-acre plot is being taken, and the yield recorded separately.

The Cora weed (*Cyperus rotunda*) has continued to give trouble, and no method of treatment has so far been completely satisfactory. Constant forking and collecting the roots and liming did good temporarily, but the weed soon returned. An experiment suggested by Mr. Beddewella to sow mustard thickly was tried in plot 155, and is being repeated. The mustard appears to have had no ill-effect on the tea. In Assam it has been found a useful green manure.

In the Dadap plot several bushes also died in the swampy area near the foot of the slope. Couch grass appeared, and was difficult to eradicate.

A new census of bushes has been taken this year, from which the yields for 1917 have been calculated to 2,722 bushes per acre.

The most marked features of the experiments since 1913 are the continued improvement in growth and yield of the original Dadap plot 149, and the plot 144 planted with Dadaps in 1912 in Assam Hybrid tea.

The permanent effect of cattle manure in plot 155 has also been most marked—the last application having been made in March, 1908, when 30 tons per acre were applied. The total actual yield from this plot since 1906 is 8,987 lb., or if calculated to 2,722 bushes per acre 11,379 lb., the area only containing

2,158 bushes. Taking bi-yearly periods since 1906, the cattle manure being applied in 1908, a practically continuous rise in yield is shown to the present time :—

	Actual Yield Made Tea, 2,158 Bushes.	Calculated to 2,722 Bushes.
	lb.	lb.
1906 and 7	292	387
1908 and 9	990	1,139
1910 and 11	1,685	2,175
1912 and 13	1,854	2,618
1914 and 15	1,820	2,313
1916 and 17	2,146	2,747

*Pruning.*—This is done every two years for all the plots, the Singlo and Assam Hybrid jâts being pruned in June, or the south-west monsoon, and the Manipuri Indigenous in December, or early January in the north-east monsoon. One branch has been left in the latter pruning on account of the succeeding dry weather, and removed when the bushes are ready for tipping. It will be noticed that the plots pruned in the south-west monsoon show a greater difference in yield in the pruned and unpruned years than the Manipuri Indigenous plot pruned in January. The wood in the Dadap, Albizzia, and Cattle Manure plots is very good, but some of the others show deterioration, and will require pruning down. All knots are removed as far as possible, and the cuts are made short and clean, leaving 3 inches of good wood.

The recovery generally is normal, taking from 82 to 94 days with the south-west pruning, and was about the same in 1918 for the Manipuri Indigenous, owing to the prolonged drought from January 24 to March 25. No bushes died out, possibly due to the live branch, which continued flushing through the whole season.

Plucking has been as usual to the whole leaf, with the result that at the time of pruning the bushes are full of leaf, giving a large amount of material for mulching and increasing the humus in the soil. The prunings from 20 bushes on the Dadap plot taken from the upper slope were weighed fresh and gave 273 lb., of which 150 lb., or 55 per cent., were woody branches and 123 lb., or 45 per cent., leaves and small twigs. Calculated to 2,722 bushes per acre, the total weight of prunings would be 37,155 lb., or approximately 16·5 tons, of which

7·4 tons are leafy material. This may be compared with a previous experiment on the same plot in December, 1913, when 32,000 lb., or 14·38 tons, of prunings were obtained, of which 5·89 tons were leafy material.

The analyses of the prunings were published in Bulletin No. 9 of May, 1914, and from these figures the amount of nitrogen and mineral matter returned to the soil in the prunings of two years' growth would be approximately as follows, calculated on the actual number of bushes in the plot, viz., 2,114, or 77 per cent., of an acre planted 4 feet by 4 feet:—

	lb.
Nitrogen in fresh leaves and twigs at 1·16 per cent. . .	143·93
Nitrogen in woody material at 48 per cent. . .	78·94
Total Nitrogen . .	222·87

The ash amounts to 2·57 per cent. on the whole prunings, or 741·6 lb. for the plot, containing approximately—

	lb.		lb.
Lime . . .	181·6	Potash . . .	75·7
Magnesia . . .	70·5	Phosphoric Acid . . .	35·6

This is returned to the soil as the prunings decay, none of the wood being removed.

To determine whether nitrogen was lost by the tea leaves drying on the surface, analyses were made of the half-withered leaf, dry leaves one month, and three months old, and gave 1·61, 1·96, and 2·13 per cent., respectively. In addition to the nitrogen in the prunings returned to the soil, there is the amount contained in the Dadap loppings, which weighed 18,051 lb. during the two years 1916 and 1917. This at 0·82 per cent. on the fresh material is 148 lb. of nitrogen returned to the soil for the two years, or with the prunings a total of 371 lb. The weight of tea actually removed in the same period is 2,774 lb., which contains approximately—

	lb.		lb.
Nitrogen . . .	138·7	Potash . . .	83·2
Lime . . .	22·2	Phosphoric Acid . . .	22·2
Magnesia . . .	11·1		

The phosphoric acid is to a large extent replaced by the basic slag, but an excess of 53 lb. of potash is removed from the soil over the amount supplied in the pruning mixture.

The continued increase of crop from this plot and the fine condition of the bushes tend to show that potash in excess is not required, and that the more vigorous growth enables the roots to obtain sufficient from the soil and the decaying prunings forked in the alternate lines.

The total weight of green material obtained from the Dadaps since 1904 was 127,091 lb., containing approximately 1,074 lb. of nitrogen, worth about Rs. 559 at 52 cents per lb. The average annual quantity is 9,622 lb., containing 82.6 lb. nitrogen. The total yield of tea from the Dadap plot during the same period 1906 to 1917 is 12,875 lb., containing about 644 lb. of nitrogen, leaving a surplus in the soil and bushes of 130 lb. Although equally satisfactory results could probably not be obtained on a large scale on estates, the advantages and economy of green manuring with Dadap on suitable soil and climate is fully demonstrated, and so far it would appear that permanent improvement is being effected at a minimum cost.

Presuming that only 50 per cent. of the Dadap nitrogen is obtained from the air, the nitrogen gained to the soil would be worth about Rs. 48.50 per acre every two years, while to apply the whole of the nitrogen in the Dadap loppings and prunings as groundnut cake would cost Rs. 259.

Comparing plot 146 (with no green manure) and plot 149 Dadaps, and plot 150 Albizzia, the total yields since 1906 are :—

	Plot 146. No Green Manure.	Plot 149. Dadaps.	Plot 150. Albizzia.
	lb.	lb.	lb.
Made tea, 1906 to 1917 ..	10,076 ..	12,875 ..	13,584 ..
Increase ..	— ..	2,799 ..	3,508 ..

As the Albizzia plot is considerably over one acre and contains 3,094 bushes, against 2,114 bushes in 149 and 2,315 bushes in 146, comparison can only be made by calculating to a standard of 2,722 bushes per acre (planted 4 feet by 4 feet).

	Plot 146. lb.	Plot 149. lb.	Plot 150. lb.
Total yields, 1906 to 1917 ..	11,965 ..	16,160 ..	11,826 ..
Average for twelve years ..	997 ..	1,346 ..	985 ..

This shows an average annual increase of 349 lb. per acre on the Dadap plot. The cost of the basic slag and sulphate of potash applied at each pruning (two years) was approximately Rs. 10.30 per acre, or Rs. 62 for the twelve years.

With the cost of forking and application at Rs. 4.70 per acre and three loppings at Re. 1.10, the average cost of cultivation would be approximately Rs. 8 per acre per annum.

Similar experiments with the prunings were made on the Albizia plot, No. 150, twenty bushes being used on the steep area and twenty on the flat.

The weights obtained were :—

	On Steep Slope. lb.	Per- centage.	On Flat Area. lb.	Per- centage.
Woody branches	143 $\frac{1}{2}$	57	98	55
Leaves and twigs	105 $\frac{1}{2}$	43	78	45
Total	249		176	

The average weight of prunings from the whole area of 3,094 bushes would be :—

	lb.
Woody branches	18,641
Leaves and twigs	14,155
Total weight	32,796 or 14.6 tons

The Albizzias planted 25 feet by 25 feet in 1904 at the same time as the Dadaps have yielded 51,228 lb. of green material during twelve years' actual lopping, or an average of only 4,269 lb., supplying about 34 lb. of nitrogen per annum, compared with 9,622 lb. from the Dadap plot, supplying 82.6 lb. of nitrogen per annum.

The total yield of tea from the plot during the same period is 13,484 lb., or 1,123 lb. per annum, but calculated to one acre the average yield is about 985 lb.

*Weeding.*—This was carried out monthly at a cost of Re. 1.25 per acre.

*Diseases.*—Shot-hole borer has increased in recent years especially below the jungle in the Dadap and Albizia plots but the proportion of bushes on which branches are destroyed is slight. Experiments on painting the pruned branches with various oil and soap emulsions have been begun.

*Census of bushes.*—The present census of bushes for the plots for 1918 is as follows :—

Plot 141, A ..	935	Plot 141, B ..	965	1,900	Singlo Indigenous	..	Artificials
Plot 142, A ..	989	Plot 142, B ..	1,065	2,054	Singlo Indigenous	..	Artificials
Plot 143, A ..	955	Plot 143, B ..	883	1,838	Singlo Indigenous	..	Artificials
Plot 144 ..	2,286	.. Assam Hybrid				..	Dadaps
Plot 145 ..	2,460	.. Assam Hybrid				..	Control
Plot 146, A ..	1,153	Plot 146, B ..	1,162	2,315	Manipuri Indigenous	..	Artificials
Plot 147, A ..	1,024	Plot 147, B ..	1,143	2,167	Manipuri Indigenous	..	Artificials
Plot 148, A ..	1,009	Plot 148, B ..	1,159	2,168	Manipuri Indigenous	..	Artificials
Plot 149 ..	2,114	.. Manipuri Indigenous				..	Dadaps
Plot 150 ..	3,094	.. Manipuri Indigenous				..	Albizias
Plot 155, A ..	1,144	Plot 155, B ..	1,014	2,158	Assam Hybrid	..	Cattle Manure

*Rainfall.*—The following table gives details regarding rainfall during the four years 1914 to 1917 :—

Table showing the Monthly Rainfall and number of Wet Days from 1914 to 1917, inclusive.

	1914.	1915.	1916.	1917.				
	Inches.	Wet Days.						
Jan.	2.20	8	9.40	14	.49	2	5.83	12
Feb.	0.33	3	4.17	3	—	—	6.12	13
March	4.56	10	1.85	6	10.64	13	6.49	17
April	5.87	11	5.57	9	8.10	9	2.15	6
May	4.83	10	2.76	8	7.30	10	4.63	3
June	12.47	27	9.10	13	13.67	20	10.24	14
July	5.17	17	12.84	20	12.53	26	6.40	13
August	5.71	11	5.10	13	4.69	16	9.95	15
Sept.	7.60	16	10.07	16	6.67	16	15.04	19
Oct.	11.87	25	5.88	10	6.77	19	9.63	13
Nov.	7.41	19	12.21	27	9.16	14	16.49	18
Dec.	14.70	21	8.64	14	4.04	10	6.49	13
Total	82.72	178	87.59	153	84.06	155	99.46	166

April 30, 1918.

M. KELWAY BAMBER.

TABLES GIVING DETAILS OF YIELDS.  
Actual Yield of Green Leaf per Plot during 1914, 1915, 1916, and 1917.

Year.	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	Total.
	Singlo	Indigenous.		Assam (Hornigala).		Manipuri Indigenous (Kotiyagala and Norwood).										Assam Hybrid.
1914	3200	3733	3075	4391	5226	4131	4004	3947	5108	5096	2296	2131	2485	2306	5257	56415
1915	1790 <sup>1</sup>	1864	1725	2901	3057 <sup>1</sup>	4035	4273	3752	6270	5756	1082	1012	118	129	2269	42864
1916	3283	4014	3336 <sup>1</sup>	4563	5260	3918 <sup>1</sup>	3935 <sup>1</sup>	3405	4726 <sup>1</sup>	5086 <sup>1</sup>	1084	970	878	835	5340 <sup>1</sup>	50686
1917	2028	2242	2067	3140	3016	5026	4996	3894	6761	1127	—	—	—	—	3548	42835

Yields of made Tea during the Years 1914, 1915, 1916, and 1917, made Tea being estimated at 24·15 Per Cent. of the Fresh Leaf.

Year.	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	Total.
	Soluble Bamboo Mixture 100 lb.	Mixture 100 lb.	Soluble Bamboo Mixture Plot.													
1914	774	900	743	1060	1269	1000	968	951	1235	552	515	600	556	1271	82·72	
1915	432	452	417	701	740	1118	1034	910	1518	1394	248	245	270	267	5449	87·58
1916	792	970	814	1105	1272	940	950	824	1142	1228	205	234	212	216	1290	84·06
1917	436	545	416	728	728	1105	1105	940	1032	1479	—	—	—	—	866	89·6

**Yields of made Tea during the Years 1914, 1915, 1916, and 1917, calculated to 2,722 Bushes per Acre, planted 4 feet by 4 feet.**

Table showing the Monthly Yield of Green Leaf; Number of Bushes in Bearing; and Dates of Pruning, Tipping, and Manuring in each Plot.

Number of Plot }	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	Total.	Rainfall.														
Fam. of Bushes }	Singhi.						Manipuri Indigenous.						Assam Hybrid.			sequ.		Date													
Bushes In																		Date													
Bushes 1912-1913	1912	1880	2204	1887	2255	2259	2264	2089	2046	2132	8122	1632	1672	1415	1638	2114	30103	8													
Bushes 1913	1913	1892	2204	1887	2255	2246	2167	2157	2157	2157	8137	1632	1773	1964	1869	2118	35385	—													
January	251.	262.	219.	277.	243.	145.	145.	145.	145.	145.	258.	163.	230.	224.	212.	227.	886	3368	2-20												
February	176.	198.	136.	237.	228.	105.	137.	104.	164.	129.	117.	115.	193.	205.	159.	331.	2345	8-33													
March	205.	215.	136.	483.	400.	354.	337.	420.	420.	324.	322.	316.	303.	303.	303.	339.	555.	10-55													
April	108.	108.	483.	402.	435.	618.	317.	380.	324.	324.	316.	316.	271.	180.	215.	400.	4412	4-83													
May	898.	832.	267.	894.	424.	292.	297.	424.	424.	424.	516.	516.	516.	516.	516.	224.	612.	17-17													
June	218.	331.	406.	658.	416.	416.	416.	416.	416.	416.	565.	565.	565.	565.	565.	459.	4831	6-71													
July	317.	205.	573.	534.	457.	500.	500.	500.	500.	500.	689.	689.	689.	689.	689.	427.	4677	7-26													
August	278.	315.	275.	421.	534.	551.	601.	551.	601.	601.	719.	719.	719.	719.	719.	147.	11-93	—													
September	225.	242.	221.	348.	459.	394.	449.	520.	520.	520.	659.	659.	659.	659.	659.	441.	4833	14-70													
October	188.	212.	176.	324.	435.	385.	385.	385.	385.	385.	648.	648.	101.	101.	101.	343.	4716	14-70													
Total	3200.	3733.	3075.	4391.	6256.	4131.	4004.	3947.	5108.	5095.	2296.	2131.	2485.	2306.	5257.	56416.	8272.	178													
Pruned	145/13.	16/5/13.	20/5/13.	11/7/13.	16/7/13.	1/12/13.	6/12/13.	9/12/13.	15/12/13.	28/12/13.	22/5/13.	24/5/13.	26/12/13.	26/12/13.	26/12/13.	26/12/13.	29/7/13.	—													
Trimmed	146/13.	16/6/13.	16/6/13.	12/6/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	10/7/13.	25/7/13.	26/7/13.	26/7/13.													
Manured	136/13.	15/6/13.	15/6/13.	12/6/13.	20/8/13.	20/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	11/8/13.	25/7/13.	26/7/13.	26/7/13.													

Table showing the Monthly Yield of Green Leaf; Number of Bushes in Bearing; and Dates of Pruning, Tipping, and Manuring in each Plot. 1915.

Number of Plot J..	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	Rainfall.	
	Singlo Indigenous.	Assam Hybrid.	Manipuri Indigenous.						Singlo.	Assam Hybrid.				Total.			
Jkt. of Bushes In Bearing:—																	
1912 ..	1612	1839	1850	1859	2156	2204	2080	2040	2132	2122	1612	1672	1415	1688	2104		
1913 ..	1670	2004	1867	2256	2392	2245	2082	2157	2239	3137	1623	1779	1984	1869	2168		
January ..	109	121	100	247	193	293	279	240	497	410	55	53	78	278	3087	940	
February ..	149	156	127	300	248	391	358	330	682	513	124	108	141	133	267	417	
March ..	169	193	145	276	206	412	340	296	465	407	124	124	144	144	233	185	
April ..	162	180	144	281	403	493	398	564	583	133	136	147	146	146	4216	657	
May ..	247	325	273	644	671	638	548	494	675	640	142	138	167	146	396	547	
June ..	96	155	101	232	871	829	816	801	428	433	78	78	90	93	3018	910	
July ..	—	—	2	190	227	434	360	314	504	510	29	20	88	88	62	13	
August ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
September ..	138	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
October ..	159	81	16	19	321	329	329	329	303	507	521	35	27	24	00	2271	1007
November ..	288	273	333	386	482	386	386	397	303	411	422	160	205	168	4533	588	
December ..	383	383	373	477	512	321	290	218	623	302	142	140	130	104	289	4617	
Total ..	1790	1866	1725	2901	3057	4616	4274	3752	6270	6788	1022	1012	1118	1129	2260	42588	
Pruned ..	21/6/15	25/6/15	28/6/15	7/7/15	4/1/16	7/1/16	13/1/16	18/1/16	20/1/16	1/7/15	4/7/16	17/7/15	20/7/15	23/7/15	—	—	
Tipped ..	27/9/15	28/9/15	30/9/15	10/8/15	16/8/15	17/8/16	18/8/16	20/8/16	22/8/16	2/9/15	29/9/15	13/10/15	13/10/15	14/10/15	—	—	
Manured ..	31/7/15	2/8/15	3/8/15	—	—	—	—	—	—	—	—	—	—	—	14/8/15	—	

Table showing the Monthly Yield of Green Leaf, Number of Bushes in Bearing; and Dates of Pruning, Tipping, and Manuring in each Plot.  
1916.

Number of Plot . .	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	Rainfall.		
																Days	Hect.	Total.
<i>Set of Bushes . .</i>																		
Bushes In Bearing:—																		
1912 ..	1829	1880	1859	2569	2204	2204	2080	2046	2132	1642	1972	1415	1538	2104	2158			
1913 ..	2004	1887	2255	2592	2245	2082	2167	2239	3137	1633	1770	1964	1869	2104	2158			
January ..	113	185	148	210	195	174	140	89	105	64	138	121	356	2607	49	2		
February ..	228	225	164	231	162	166	133	123	123	123	123	123	123	123	123	123		
March ..	329	240	229	304	139	126	106	182	163	163	163	163	163	163	163	163		
April ..	379	607	394	631	691	204	207	203	308	323	208	162	147	102	102	102		
May ..	323	650	409	854	194	194	193	201	235	233	233	211	144	132	508	508		
June ..	328	339	339	372	539	207	917	320	401	896	153	121	101	107	515	4928	10	
July ..	273	339	339	365	372	372	372	372	372	94	87	75	73	62	439	12	20	
August ..	333	409	360	575	575	575	575	575	575	94	87	74	66	66	604	604	16	
September ..	262	307	250	410	403	554	473	473	473	633	706	74	—	—	416	416	16	
October ..	2118	269	217	399	377	450	473	348	530	530	617	—	—	—	5104	5104	16	
November ..	222	259	238	366	338	488	503	503	503	621	621	—	—	—	432	432	16	
December ..	209	217	209	313	339	437	452	394	604	604	624	—	—	—	315	430	14	
Total ..	3283	4014	3394	44634	5260	39834	39834	47264	60864	1084	970	878	805	53401	46660	155		
Pruned Tipped ..	21(6/15	25(6/15	28(6/15	77/15	10/7/15	4/1/16	7/1/16	13/1/16	18/1/16	1/7/16	4/7/15	17/7/15	29/7/15	20/7/15	29/7/15	—		
Manured ..	27(9/15	27(9/15	28(9/15	30(9/15	30(9/15	10/8/15	10/8/15	10/3/16	17/3/16	18/3/16	20/3/16	22/3/16	28(9/15	28(9/15	28(9/15	—		
	31(7/15	24(8/15	31(8/15	31(8/15	31(8/15	9/8/15	9/8/15	10/8/15	10/8/15	10/8/15	10/8/15	10/8/15	6,8/15	6,8/15	6,8/15	—		

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Table showing the Monthly Yield of Green Leaf; Number of Bushes in Bearing; and Dates of Pruning, Tipping, and Manuring in each Plot.

1917.

Number of Plot ..	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	155.	Rainfall.		
												Assam Hybrid.		
Jat of Bushes ..	Single.												Days.	
Bushes in Bearing	1912	1890	1880	1870	1860	1850	2245	2232	2194	2166	2136	2104	Days.	
Bearing	1912	1913	1913	1913	1913	1913	2236	2232	2194	2166	2136	2104	Days.	
January	122	138	111	167	162	268	256	267	271	329	271	2362	Days.	
February	177	185	168	292	271	382	404	349	508	436	336	3613	Days.	
March	284	331	351	513	522	538	544	483	706	719	601	3612	Days.	
April	239	359	331	416	471	458	513	454	715	639	601	3612	Days.	
May	232	276	312	426	426	537	537	523	571	496	4658	4658	Days.	
June	130	232	248	418	450	523	523	527	573	433	433	1034	Days.	
July	—	—	—	—	—	—	—	—	—	158	158	2180	Days.	
August	—	—	—	—	—	—	—	—	—	304	511	438	Days.	
September	173	168	115	153	53	322	312	240	487	358	—	2971	Days.	
October	230	212	188	316	310	287	310	184	608	236	—	1719	Days.	
November	321	312	253	310	310	503	460	276	505	372	324	2299	Days.	
December	—	—	—	—	—	336	304	271	560	715	302	3815	Days.	
Total	2018	2242	2007	3140	3016	5056	4998	3894	6704	6127	3548	42855	Days.	
Pruned	12/6/17	15/6/17	23/6/17	29/6/17	5/7/17	—	—	—	—	—	—	14/7/17	Days.	
Tipped	14/6/17	17/6/17	18/6/17	19/6/17	28/6/17	—	—	—	—	—	—	4/10/17	Days.	
Manured	9/5/17	13/5/17	13/5/17	13/5/17	—	—	—	11/5/17	11/5/17	—	—	—	Days.	



